Substitute Specification of 1-18-2005

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JETTING DEVICE AND METHOD AT A JETTING DEVICE

Technical field of the invention

The present invention generally relates to a method and a system for jetting droplets of viscous medium onto a substrate. In particular, the present invention relates to a method and a system for jetting droplets onto a substrate, in which the size of the resulting deposits on the substrate can be varied.

10 Technical background and prior art

Systems, devices and methods are known in the art for jetting droplets of viscous medium, e.g. solder paste or glue, onto a substrate, e.g. an electronic circuit board, thus forming deposits on the substrate prior to mounting components thereon. Such a jetting system generally comprises an nozzle space for containing a small volume of the viscous medium prior to the jetting thereof, a jetting nozzle communicating with the nozzle space, an impacting device for impacting and jetting the viscous medium from the nozzle space through the jetting nozzle in the form of droplets, and a feeder for feeding the medium into the nozzle space.

Since the production speed is an essential factor in the manufacturing of electronic circuit boards, the application of viscous medium is preferably performed "on the fly", i.e. without stopping for each location on the substrate where viscous medium is to be deposited.

When applying solder paste or the like on a substrate, such as a circuit board, it has long been a requirement to have different sizes or areas for deposits on different locations of the substrate. When jetting is used, one solution is to apply several drops on top of each other, thus forming a larger deposit. It has also been suggested to vary the volume of the jetted droplet,

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